

THE FIRST RECORD OF THE PADUNIPELLINI IN THE NEW WORLD
(TRICHOPTERA: PSYCHOMYIIDAE)

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Intermingled among material recently collected in Arkansas by Dr. R. W. Hodges was a most unusual new species of Trichoptera. When the genitalia of this specimen were cleared, it was immediately obvious that this represented a genus and species not previously known from the New World. It was finally determined that the species agreed in all structural characteristics with the genus *Paduniella*.

Paduniella was erected by Ulmer in 1913 for his species *semarangensis* from Java. Since then, some dozen and a half species from Africa, India, Ceylon, Philippines, Indonesia, and the south Usuri region of Russia have been described. *P. nearctica* is the first species to be discovered in the New World. Although several genera have been proposed for these species, they all seem congeneric.

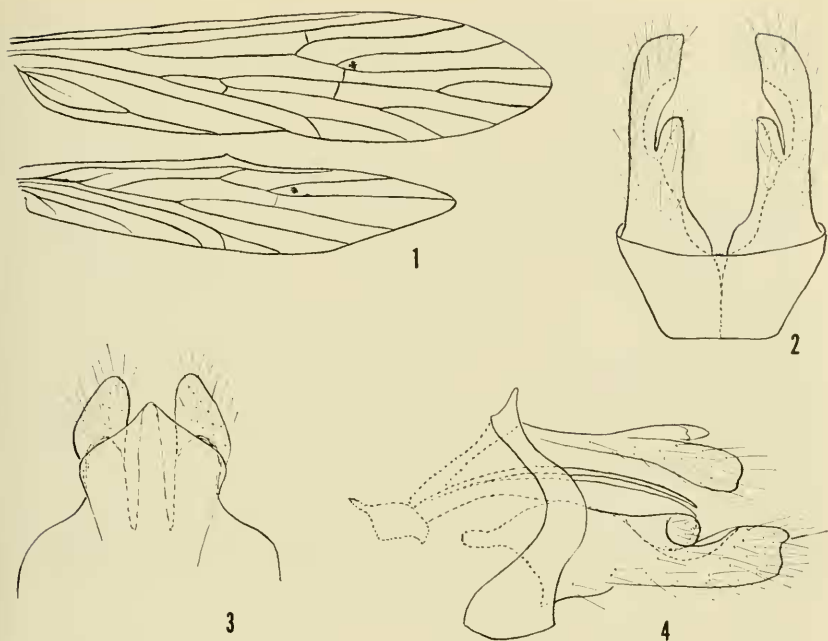
Because Fischer (1962) recognizes the Polycentropodidae as a family distinct from the Psychomyiidae, he treats these species as comprising a subfamily, the Paduniellinae. However, if one considers, as other workers and I do, that the Polycentropodinae and Psychomyiinae are coordinate subfamilies of the Psychomyiidae, then the taxon is reduced to the tribe Paduniellini in the Psychomyiinae.

Within the Psychomyiidae, this is the only taxon with 6-segmented maxillary and 4-segmented labial palpi. All the other groups have one less segment in each palpus. Except for the lack of the crossvein between R_{2+3} and R_4 in the forewing of *Paduniella*, the wing venation and shape are the same as some other psychomyiids, such as the common *Psychomyia flavida* Hagen. The immature stages are totally unknown.

Paduniella nearctica, n. sp.

This species appears to be close to the Ceylonese *P. sanghamittra* Schmid, especially in the shape of the clasper, but differs in possessing only 1 spine above the aedeagus.

Adult. Length of forewing, 4.5 mm. Color uniformly pale yellowish-brown, antennae annulate with brown. Male genitalia: Ninth segment narrow, much modified, sternum extending dorsad as a narrow process, tergum apparently a narrow, darkened structure between membranous eighth segment and cercus. Cercus broadly united to ninth tergum, extending posteriad as a broad rounded lobe. Tenth tergum a mostly membranous, conical lobe between ninth tergites. Clasper elongate, quadrate in lateral aspect with a dorsomesal, thumb-like lobe; a concave pocket on inner surface of lobe and adjacent part of clasper. Aedeagus with paired rods articulating between base and dorsal angles of ninth sternum; a small basal section set off from a long, compressed tube, which is widened apically and overlain with a single long, slender spine.



Figs. 1-4., *Paduniella nearctica*, n. sp.: 1, venation, fore and hindwings; 2, claspers, ventral; 3, tenth tergum and cerci, dorsal; 4, male genitalia, lateral.

Holotype, male: Arkansas, Washington Co., Devil's Den State Park, 30 May 1966, R. W. Hodges. USNM type 69209. Paratypes: Arkansas, Washington Co., Cove Creek, light trap, 19 May 1962, O. & M. Hite, 3 ♂, same but, 20 May 1962, 2 ♂.

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